

WHAT IS CLAIMED IS:

1. A medical device for taking a biopsy of material, comprising:
a catheter having a catheter lumen with a proximal end and a distal end; and
a needle for selectively moving to extend from the distal end of the catheter lumen to a first position to take the biopsy and to a second position within the catheter lumen, said needle having a first port between the distal end of the needle and the proximal end of the needle for selectively opening and closing to take the biopsy of the material.
2. The medical device of claim 1 further including a sheath having a sheath lumen through which the catheter is selectively moved.
3. The medical device of claim 2 further including means for selectively restricting relative movement between the sheath and the catheter.
4. The medical device of claim 1 further including a driver for selectively moving the needle with one or more of a predefined force, a predefined acceleration and a predefined velocity to penetrate the material.
5. The medical device of claim 4 wherein the driver selectively rotates the needle.
6. The medical device of claim 1 further including a sensor on the device for providing signals for determining position of the device.
7. The medical device of claim 6 wherein the sensor is on the needle.
8. The medical device of claim 1 further including a second port in fluid communication with the first port to retrieve the biopsy material from the first port.
9. A medical device for injecting a fluid into a material, comprising:

a catheter having a catheter lumen with a proximal end and a distal end; and
a needle for selectively moving to extend from the distal end of the catheter
lumen to a first position to inject the fluid into the material and to a second position
within the catheter lumen, said needle having a first port between the distal end of the
needle and the proximal end of the needle for selectively opening to inject the fluid into
the material and closing.

10. The medical device of claim 9 further including a sheath having a sheath
lumen through which the catheter is selectively moved.

11. The medical device of claim 10 further including means for selectively
restricting relative movement between the sheath and the catheter.

12. The medical device of claim 9 further including a driver for selectively moving
the needle with one or more of a predefined force, a predefined acceleration and a
predefined velocity to penetrate the material.

13. The medical device of claim 12 wherein the driver selectively rotates the
needle.

14. The medical device of claim 9 further including a sensor on the device for
providing signals for determining position of the device.

15. The medical device of claim 14 wherein the sensor is on the needle.

16. The medical device of claim 9 further including a second port in fluid
communication with the first port and a supply of the fluid.

17. A medical device for taking a biopsy of material, comprising:

a catheter having a catheter lumen with a proximal end and a distal end;

a needle for selectively moving to extend from the distal end of the catheter lumen to a first position to take the biopsy and to a second position within the catheter lumen;

a sheath having a sheath lumen through which the catheter is selectively moved;
and

a driver for selectively moving the needle with one or more of a predefined force, a predefined acceleration and a predefined velocity to penetrate the material.

18. The medical device of claim 17 further including means for selectively restricting relative movement between the sheath and the catheter.

19. A medical device for injecting a fluid into a material, comprising:
a catheter having a catheter lumen with a proximal end and a distal end;
a needle for selectively moving to extend from the distal end of the catheter lumen to a first position to inject the fluid into the material and to a second position within the catheter lumen;
a sheath having a sheath lumen through which the catheter is selectively moved;
and

a driver for selectively moving the needle with one or more of a predefined force, a predefined acceleration and a predefined velocity to penetrate the material.

20. The medical device of claim 19 further including means for selectively restricting relative movement between the sheath and the catheter.